

AMENDMENT TO THE CLAIMS

Please amend the claims without prejudice, without admission, without surrender of subject matter, and without any intention of creating any estoppel as to equivalents, as follows.

In the Claims:

1. (Original) A process for preparing a phenolic polymer via polymerization of phenolic monomers having unsaturated aliphatic chains in the presence of peroxidase biocatalyst and an oxidant, wherein said polymerization uses as a mediator a phenothiazine derivative substituted with an alkyl group or alkyl carbonic acid.
2. (Original) The process according to claim 1, wherein said phenothiazine derivative is used in a concentration of 20-100 μM with respect to the total reactant.
3. (Original) The process according to claim 1, wherein said phenothiazine derivative is ethyl phenothiazine or phenothiazine-10-propionic acid.
4. (Original) The process according to claim 1, wherein said phenolic monomer is a plant phenolic oil.
5. (Currently amended) The process according to claim 1, wherein said peroxidase biocatalyst is a plant- or fungus-derived peroxidase ~~including horseradish peroxidase, soybean peroxidase, Coprinus peroxidase and Aspergillus peroxidase.~~
6. (Original) The process according to claim 1, wherein said oxidant is hydrogen peroxide or hydroalkyl peroxide.
7. (Previously presented) A radical cured resin of the phenolic polymer prepared according to claim 1.
8. (Original) A coating material comprising the radical cured resin of claim 7.
9. (Previously presented) A radical cured resin of the phenolic polymer prepared according to claim 2.

10. (Previously presented) A radical cured resin of the phenolic polymer prepared according to claim 3.
11. (Previously presented) A radical cured resin of the phenolic polymer prepared according to claim 4.
12. (Previously presented) A radical cured resin of the phenolic polymer prepared according to claim 5.
13. (Previously presented) A radical cured resin of the phenolic polymer prepared according to claim 6.
14. (New) The process according to claim 5, wherein said peroxidase biocatalyst is a plant- or fungus-derived peroxidase selected from the group consisting of horseradish peroxidase, soybean peroxidase, Coprinus peroxidase and Aspergillus peroxidase.
15. (New) The process according to claim 2, wherein said phenothiazine derivative is ethyl phenothiazine or phenothiazine-10-propionic acid.
16. (New) The process according to claim 15, wherein said phenolic monomer is a plant phenolic oil.
17. (New) The process according to claim 16, wherein said peroxidase biocatalyst is a plant- or fungus-derived peroxidase selected from the group consisting of horseradish peroxidase, soybean peroxidase, Coprinus peroxidase and Aspergillus peroxidase.